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Biology Chemistry Physics English

- 1) The organic compounds of varying structural complexity associated with regulation of chemical reactions are:

A) Enzymes
B) Coenzymes
C) Hormones
D) Co-factors

☐ A ☐ B ☐ C ☐ D

- 2) Pick up the hormones which are polypeptides in nature:

A) Insulin and glucagon
B) ADH and oxytocin
C) Thyroxine, epinephrine and non-epinephrine
D) Testosterone and cortisol

☐ A ☐ B ☐ C ☐ D

- 3) Pick up unpaired endocrine gland:

A) Gonad
B) Adrenal
C) Parathyroid
D) Pituitary

☐ A ☐ B ☐ C ☐ D

- 4) It is ovoid structure, weighing about 0.5 gm in adult human being:

A) Hypothalamus
B) Pituitary gland
C) Adrenal
D) Posterior pituitary

☐ A ☐ B ☐ C ☐ D

- 5) Over secretion of STH after puberty results in:

A) Gigantism
B) Cretinism
C) Dwarfism
D) Acromegaly

☐ A ☐ B ☐ C ☐ D

- 6) Excess of thyroxine produces a condition called:

A) Myxoedema
B) Goiter
C) Grave's disease
D) Cretinism

☐ A ☐ B ☐ C ☐ D

- 7) The lack of vasopressin produces:

A) Diabetes insipidus
B) Diabetes mellitus
C) Antidiuresis
D) Conservation of water

☐ A ☐ B ☐ C ☐ D

8) Islets of Langerhans have a large number of _____ cells which secrete _____:

- A) α , glucagon C) α , insulin
B) β , glucagon D) β , insulin

☐ A ☐ B ☐ C ☐ D

9) Prolactin stimulates:

- A) Milk ejection
B) Release of milk
C) Milk production
D) Degeneration of corpus luteum

☐ A ☐ B ☐ C ☐ D

10) Hypoglycaemia may occur as a result of:

- A) Excess of insulin
B) Excess of glucagon
C) Excess of cortisol
D) Excess of glucocorticoid hormone

☐ A ☐ B ☐ C ☐ D

11) It brings about increase in blood glucose level mainly by its production from protein:

- A) Insulin C) Cortisol
B) Glucagon D) Aldosterone

☐ A ☐ B ☐ C ☐ D

12) Select the correct matching of a hormone, its source and function:

	Hormone	Source	Function
A)	Vasopressin	Posterior pituitary	Increases loss of water through urine
B)	Norepinephrine	Adrenal medulla	Increases heart beat, rate of respiration and alertness
C)	Glucagon	Beta-cells of Islets of Langerhans	Stimulates glycogenolysis
D)	Prolactin	Posterior pituitary	Regulates growth of mammary glands and milk formation in females

☐ A ☐ B ☐ C ☐ D

13) In female the development of secondary sexual characters is brought about by:

- A) FSH C) Progesterone
B) Estrogen D) LH

☐ A ☐ B ☐ C ☐ D

14) It prevents the loss of Na^+ from the kidney tubules:

- A) Cortisol C) Aldosterone
B) Corticosterone D) Androgen

☐ A ☐ B ☐ C ☐ D

15) Maintenance of level of glucose in the blood is:

- A) Positive feedback C) Reflex action
B) Negative feedback D) Feedback inhibition

☐ A ☐ B ☐ C ☐ D

16) When acid food touches the lining of duodenum, it secretes a hormone called:

- A) Gastrin
- B) Secretin
- C) Melatonin
- D) Somatostatin

☐ A ☐ B ☐ C ☐ D

17) Calcitonin is antagonistic to:

- A) Aldosterone
- B) Thyroxine
- C) Parathormone
- D) Corticosterone

☐ A ☐ B ☐ C ☐ D

18) Under secretion of parathormone causes:

- A) Hypercalcemia
- B) Hypocalcemia
- C) Hypoglycemia
- D) Hyperglycemia

☐ A ☐ B ☐ C ☐ D

19) It is chief mineralocorticoid:

- A) Antidiuretic hormone
- B) Parathormone
- C) Epinephrine
- D) Aldosterone

☐ A ☐ B ☐ C ☐ D

20) Ripening follicle secretes:

- A) Progesterone
- B) FSH
- C) Estrogen
- D) Androgen

☐ A ☐ B ☐ C ☐ D

21) Pituitary gland is attached to hypothalamus by a stalk called:

- A) Placenta
- B) Infundibulum
- C) Cord
- D) Funicle

☐ A ☐ B ☐ C ☐ D

22) The adrenal medulla produces:

- A) Aldosterone
- B) Calcitonin
- C) Epinephrine
- D) Estrogen

☐ A ☐ B ☐ C ☐ D

23) It is a type of interaction in which a controlling mechanism is itself controlled by the product of reaction it is controlling:

- A) Counter current mechanism
- B) Feedback mechanism
- C) Precursor mechanism
- D) Induce fit mechanism

☐ A ☐ B ☐ C ☐ D

24) ADH and oxytocin are released by:

- A) Thyroid gland
- B) Hypothalamus
- C) Anterior pituitary
- D) Posterior pituitary

☐ A ☐ B ☐ C ☐ D

25) The glands which secrete other substances such as digestive enzymes, milk, sweat, bile and route their secretion to specific destinations by means of ducts are called:

- A) Endocrine glands
- B) Exocrine glands
- C) Ductless glands
- D) Autocrine glands

☐ A ☐ B ☐ C ☐ D

26) Follicle cells after ovulation are modified to form:

- A) Steroli cells
- B) Corpus luteum
- C) Primary follicles
- D) More ova

☐ A ☐ B ☐ C ☐ D

27) Menstruation occurs due to lack of:

- A) FSH
- B) LH
- C) Progesterone
- D) Estrogen

☐ A ☐ B ☐ C ☐ D

28) Pick up correct sequence of stages in the menstrual cycle:

- A) Follicular → Ovulation → Luteal → Menstrual
- B) Ovulation → Luteal → Menstrual → Follicular
- C) Ovulation → Menstrual → Luteal → Follicular
- D) Menstrual → Luteal → Follicular → Ovulation

☐ A ☐ B ☐ C ☐ D

29) Ovulation is induced by:

- A) Follicle stimulating hormone
- B) Luteinizing hormone
- C) Estrogen
- D) Progesterone

☐ A ☐ B ☐ C ☐ D

30) On puberty, the development of primary follicles is stimulated by:

- A) FSH
- B) Progesterone
- C) Estrogen
- D) LH

☐ A ☐ B ☐ C ☐ D

31) Menstrual cycle generally recurs after every:

- A) 20 days
- B) 28 days
- C) 30 days
- D) 40 days

☐ A ☐ B ☐ C ☐ D

32) Secretion of luteinizing hormone is induced by:

- A) Decrease of estrogen and increase of FSH
- B) Increase of estrogen and FSH
- C) Decrease of FSH and estrogen
- D) Decrease of FSH and increase of estrogen

☐ A ☐ B ☐ C ☐ D

33) _____ prepare the mammary glands for the production of _____:

- A) Progesterone, milk
- B) Estrogen, sweat
- C) Prolactin, milk
- D) Prolactin, mucus

☐ A ☐ B ☐ C ☐ D

34) In human females menstruation stage usually lasts for:

- A) 1 – 3 days
- B) 3 – 7 days
- C) 7 – 10 days
- D) 10 – 15 days

☐ A ☐ B ☐ C ☐ D

35) The human corpus luteum produces:

- A) LH
B) Estrogen
C) Progesterone
D) FSH

☐ A ☐ B ☐ C ☐ D

36) After ovulation, the ruptured follicle is transformed into a glandular structure called:

- A) Corpus luteum
B) Corpus callosum
C) Primary follicle
D) Mature follicle

☐ A ☐ B ☐ C ☐ D

37) The end or complete stop of the menstrual cycle is called:

- A) Menstruation
B) Menarche
C) Menopause
D) Conception

☐ A ☐ B ☐ C ☐ D

38) Pick up the shortest phase of uterine cycle:

- A) Ovulatory phase
B) Proliferative phase
C) Secretory phase
D) Menstruation phase

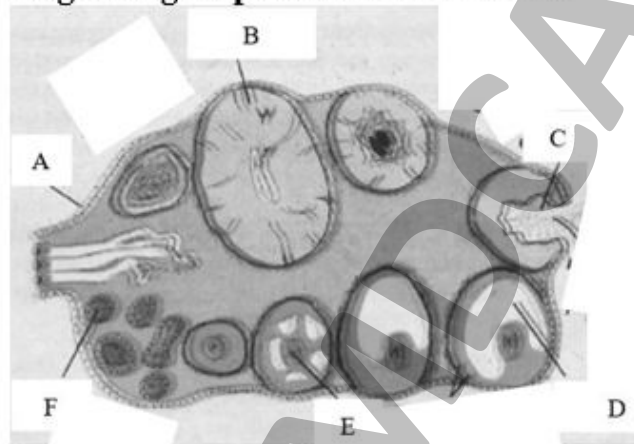
☐ A ☐ B ☐ C ☐ D

39) A non-human female exhibiting desire for mating is said to be:

- A) On menstruation
B) Pregnant
C) Receptive
D) On heat

☐ A ☐ B ☐ C ☐ D

40) Refer to the given diagram and choose the correct option regarding its part labelled as A - F:



- A) A-Ovary, B-Ovulation
B) C-Corpus luteum, D-Follicular fluid
C) E-Oocyte, B-Corpus luteum
D) F-Primary follicle, D- Corpus luteum

☐ A ☐ B ☐ C ☐ D

41) Pick up the exclusively glucocorticoid hormone:

- A) Cortisol
B) Corticosterone
C) Aldosterone
D) Androgens

☐ A ☐ B ☐ C ☐ D

42) First hormone stimulates the production of second hormone and second hormone inhibits the production of first hormone. This phenomenon exists in:

- A) Estrogen and FSH respectively
- B) Estrogen and progesterone respectively
- C) Progesterone and estrogen respectively
- D) FSH and estrogen respectively

☐ A ☐ B ☐ C ☐ D

43) Ovulation is timed to coincide with:

- A) Menstruation
- B) Conception
- C) Thickening of uterine wall
- D) Fertilization

☐ A ☐ B ☐ C ☐ D

44) Ovulation in the human female normally take place _____ of the menstrual cycle:

- A) At the beginning of the secretory phase
- B) At the end of the menstrual phase
- C) Just before the end of the secretory phase
- D) At the end of the secretory phase

☐ A ☐ B ☐ C ☐ D

45) Maximum thickening of endometrium occurs during _____ of menstrual cycle:

- A) Mensuration
- B) Proliferative phase
- C) Secretory phase
- D) Ovulation

☐ A ☐ B ☐ C ☐ D

46) Breakdown of endometrium is due to decreased production of:

- A) LH
- B) Progesterone
- C) Estrogen
- D) Oxytocin

☐ A ☐ B ☐ C ☐ D

47) Pick up the one not true about gonadotropins:

- A) Ovarian cycle is regulated by gonadotropins
- B) Release of gonadotropins is regulated by menstrual cycle
- C) Uterine cycle is regulated by gonadotropins
- D) Release of gonadotropins is regulated by gonadotropins releasing hormone

☐ A ☐ B ☐ C ☐ D

48) Ovulation is suppressed by progesterone via:

- A) Only by inhibition of LH
- B) Inhibition of LH and stimulation of FSH
- C) Inhibition of FSH and stimulation of LH
- D) Inhibition of FSH and inhibition of LH

☐ A ☐ B ☐ C ☐ D

49) It controls basal metabolic rate:

- A) Cortisol
- B) Parathormone
- C) Calcitonin
- D) Thyroxine

☐ A ☐ B ☐ C ☐ D

50) The HIV is transmitted from one person to another by:

- A) Hand shaking

- A) Hand shaking
B) Sharing meal
C) Exchanging body fluids
D) Sharing towel

☐ A ☐ B ☐ C ☒ D

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< TEST

Biology **Chemistry** Physics English

51) Which one of the following is nucleophilic substitution reaction (NSR)?

- A) $\text{CH}_4 + \text{HONO}_{2(\text{conc.})} \xrightarrow{450^\circ\text{C}} \text{CH}_3 - \text{NO}_2 + \text{H}_2\text{O}$
 B) $\text{H}_2\text{C} = \text{CH}_2 + \text{Br}_2 \xrightarrow{\text{CCl}_4} \text{H}_2\text{C}(\text{Br}) - \text{CH}_2(\text{Br})$
 C) $\text{H}_3\text{C} - \text{CH}_2 - \text{NH}_2 + \text{HCl}_{(\text{dil.})} \longrightarrow \text{H}_3\text{C} - \text{CH}_2 - \overset{+}{\text{N}}\text{H}_3 \overset{-}{\text{Cl}}$
 D) $\text{CH}_3 - \text{CH}_2 - \text{Br} + \text{OH}^- \longrightarrow \text{H}_3\text{C} - \text{CH}_2 - \text{OH} + \text{Br}^-$

☐ A ☐ B ☐ C ☐ D

52) Which of the following has higher boiling point?

- A) $\text{CH}_3 - \text{Br}$ C) $\text{CH}_3 - \text{I}$
 B) $\text{CH}_3 - \text{F}$ D) $\text{CH}_3 - \text{Cl}$

☐ A ☐ B ☐ C ☐ D

53) Consider the following reactions having the conditions 'X' and 'Y' in the following set of transformations.



In the above transformations 'X' and 'Y' stand for conditions

- A) X = dilute aqueous NaOH, 20°C;
 Y = HBr/acetic acid, 20°C
 B) X = concentrated alcoholic NaOH, 80°C;
 Y = HBr/acetic acid, 20°C
 C) X = dilute aqueous NaOH, 20°C;
 Y = $\text{Br}_2/\text{CHCl}_3$, 0°C
 D) X = concentrated alcoholic NaOH, 80°C;
 Y = $\text{Br}_2/\text{CHCl}_3$, 0°C

☐ A ☐ B ☐ C ☐ D

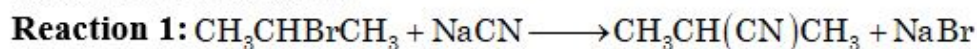
54) Chloroethane is converted into a carboxylic acid containing one more carbon atom through a two stage process. Which of the following compounds could be the intermediate in the synthesis of the carboxylic acid?

- A) $\text{CH}_3\text{CH}_2\text{OH}$ C) $\text{CH}_3\text{CH}_2\text{CH}_2\text{NH}_2$
 B) $\text{CH}_3\text{CH}_2\text{CN}$ D) $\text{CH}_3\text{CH}_2\text{CO}_2\text{CH}_3$

☐ A ☐ B ☐ C ☐ D

55) Under identical conditions, even though it proceeds by the same mechanism, reaction 1 is

process by the same mechanism, reaction 1 is faster than reaction 2.

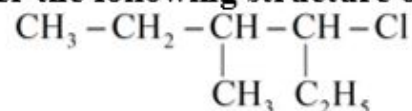


What factor will explain this result?

- A) The C – I bond is a stronger bond than the C – Br bond
- B) The C – N bond is a stronger bond than the C – I bond
- C) The cyanide ion is a stronger nucleophile than the iodide ion
- D) The cyanide ion is a weaker nucleophile than the iodide ion.

☐ A ☐ B ☐ C ☐ D

56) Consider the following structure of alkyl halide:



The correct name of the given structure of alkyl halide is:

- A) 3-Chloro-4-methylhexane
- B) 4-Chloro-4-methylhexane
- C) 1-Chloro-2-ethyl-3-methylbutane
- D) 4-Chloro-4-ethyl-2-methylbutane

☐ A ☐ B ☐ C ☐ D

57) Which of the following is not S_N reaction?

- A) $\text{CH}_3 - \text{CH}_3 - \text{Br} + \text{OH}^- \longrightarrow \text{H}_3\text{C} - \text{CH}_2 - \text{OH} + \text{Br}^-$
- B) $\text{CH}_3 - \text{CH}_2 - \text{Br} + \text{CH}_3\text{O}^- \longrightarrow \text{CH}_3 - \text{CH} - \text{O} - \text{CH}_3$
- C) $\text{CH}_3 - \text{CH}_2 - \text{Br} + \text{NH}_3 \longrightarrow \text{CH}_3 - \text{NH}_2 + \text{HBr}$
- D) $\text{CH}_3 - \text{CH}_2 - \text{Cl} + \text{Zn} + \text{HCl}_{(\text{aq.})} \xrightarrow{\text{ether}} \text{CH}_3 - \text{CH}_3 + \text{ZnCl}_2$

☐ A ☐ B ☐ C ☐ D

58) During $\text{S}_\text{N}2$ reaction, configuration of the alkyl halide molecule:

- A) Remains same
- B) Depends on the electronegativity of halogen
- C) Depends upon the structure of alkyl halide
- D) Gets inverted

☐ A ☐ B ☐ C ☐ D

59) Which of the followings is good nucleophile as well as good leaving group?

- A) OH^-
- B) I^-
- C) NH_2^-
- D) OR^-

☐ A ☐ B ☐ C ☐ D

60) Which of the following is correct order of ease of $\text{S}_\text{N}1$ reaction shown by alkyl halide?

- A) $(\text{R})_2\text{CHX} > \text{CH}_3\text{X} > (\text{R})_3\text{C-X} > \text{RCH}_2\text{X}$
- B) $\text{CH}_3\text{X} > \text{RCH}_2\text{X} > (\text{R})_2\text{CHX} > (\text{R})_3\text{C-X}$
- C) $(\text{R})_2\text{CHX} > (\text{R})_3\text{C-X} > \text{RCH}_2\text{X} > \text{CH}_3\text{X}$
- D) $(\text{R})_3\text{C-X} > (\text{R})_2\text{CHX} > \text{RCH}_2\text{X} > \text{CH}_3\text{X}$

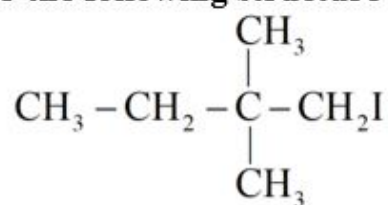
☐ A ☐ B ☐ C ☐ D

61) Which of the following compounds is used as a refrigerant?

- A) CCl_4
- B) CHCl_3
- C) CH_2Cl_2
- D) CF_2Cl_2

☐ A ☐ B ☐ C ☐ D

- 62) Consider the following structure of alkyl halide:



The correct name of the given structure of alkyl halide is:

- A) 4-Iodo-2,2-dimethylbutane
B) 1-Iodo-2,2-dimethylbutane
C) 1-Iodo-3,3-dimethylbutane
D) 4-Iodo-3,3-dimethylbutane

☐ A ☐ B ☐ C ☐ D

- 63) Which of the following is comparatively a poor leaving group?

- A) Cl^- C) I^-
B) Br^- D) OR^-

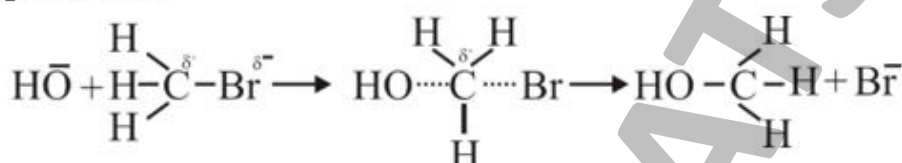
☐ A ☐ B ☐ C ☐ D

- 64) Which of the following factors does not affect $\text{S}_{\text{N}}1$ mechanism reaction?

- A) Strength of attacking nucleophile
B) Structure of alkyl halides
C) Nature of leaving group
D) Conc. of substrate

☐ A ☐ B ☐ C ☐ D

- 65) In the below reaction, the configuration of product is:



- A) 100% same of the configuration of reactant
B) 100% opposite from configuration of reactant
C) 50% retained
D) 50% inverted

☐ A ☐ B ☐ C ☐ D

- 66) Which one of the following statements is incorrect for $\text{S}_{\text{N}}2$ mechanism reaction w.r.t alkyl halide?

- A) A one step mechanism
B) Bimolecular reaction
C) Rate of reaction depends on the conc. Of alkyl halide and nucleophile
D) Reaction occurs with weak nucleophile

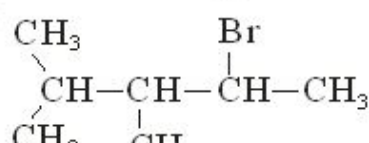
☐ A ☐ B ☐ C ☐ D

- 67) Which of the following statements is incorrect about haloalkanes?

- A) The general formula of haloalkanes is $\text{C}_n\text{H}_{2n+1}\text{X}$
B) Their derivatives can be easily prepared
C) They have high reactivity
D) Their boiling points decrease with the increasing of molecular mass

☐ A ☐ B ☐ C ☐ D

- 68) Consider the following structural formula of alkyl halide:



The correct name of the above structure according to IUPAC is:

- A) 4-Bromo-2,3-dimethylpentane
 B) 2-Bromo-2,3-dimethylpentane
 C) 2-Bromo-3,4-dimethylpentane
 D) 4-Bromo-3,3-dimethylpentane

☐ A ☐ B ☐ C ☐ D

69) Consider the following statements:

- I. $\text{CH}_3\text{-I}$ will react faster than $\text{CH}_3\text{-Br}$ in $\text{S}_\text{N}2$
 II. $\text{CH}_3\text{-F}$ will react faster than $\text{CH}_3\text{-I}$ in $\text{S}_\text{N}2$
 III. $\text{CH}_3\text{-Br}$ will react faster than $\text{CH}_3\text{-Cl}$ in $\text{S}_\text{N}2$
 IV. $\text{CH}_3\text{-Cl}$ will react faster than $(\text{CH}_3)_3\text{CCl}$ in $\text{S}_\text{N}2$

Which of the above statements is incorrect?

- A) I only
 B) II only
 C) II and III
 D) I, II, III and IV

☐ A ☐ B ☐ C ☐ D

70) Which of the following is correct order of stability of carbanion of alkyl halides?

- A) $\text{CH}_3^- > \text{CH}_3\text{CH}_2^- > (\text{CH}_3)_2\text{CH}^- > (\text{CH}_3)_3\text{C}^-$
 B) $\text{CH}_3\text{-CH}_2^- > \text{CH}_3^- > (\text{CH}_3)_2\text{CH}^- > (\text{CH}_3)_3\text{C}^-$
 C) $\text{CH}_3^- > (\text{CH}_3)_2\text{CH}^- > \text{CH}_3\text{CH}_2^- > (\text{CH}_3)_3\text{C}^-$
 D) $(\text{CH}_3)_2\text{CH}^- > (\text{CH}_3)_3\text{C}^- > \text{CH}_3^- > \text{CH}_3\text{CH}_2^-$

☐ A ☐ B ☐ C ☐ D

71) In elimination reaction there is another site present in the alkyl halide molecule where the attacking reagent (base) can attack at the same time. Such a site is an electrophilic hydrogen atom (β -hydrogen is acidic in nature) which is attached to the β -carbon of the alkyl halide. When the attack takes place on hydrogen we get an alkene there are two types of elimination reactions (E_1 and E_2):

Which of the following statements is incorrect about E_1 elimination reaction?

Opt.	E_1 Elimination
A)	Mechanism of reaction
B)	Rate of reaction = $k [\text{R-X}]$ It is unimolecular and second order kinetics reaction
C)	Order of ease of E_1 elimination reaction in alkyl halide is $2^\circ \text{ alkyl halide} > 3^\circ \text{ alkyl halide} > 1^\circ \text{ alkyl halide}$
D)	It completes in two step

☐ A ☐ B ☐ C ☐ D

72) When 1-bromopropane is treated in succession with two reagents, 'X' and 'Y', it produces propanoic acid. What are reagent 'X' and 'Y'?

Options	X	Y
A)	$\text{NaOH}_{(\text{aq})}$	$\text{H}^+ / \text{Cr}_2\text{O}_7^{2-}(\text{aq})$
B)	$\text{NaOH}_{(\text{aq})}$	CO_2
C)	KCN in ethanol	$\text{HCl}_{(\text{aq})}$
D)	KCN in ethanol	$\text{NaOH}_{(\text{aq})}$

☐ A ☐ B ☐ C ☐ D

The correct order of decreasing chemical

73) reactivity of alkyl halides on the bases of bond polarity is:

- A) $R-I > R-Br > R-Cl > R-F$
B) $R-F > R-Cl > R-Br > R-I$
C) $R-Cl > R-Br > R-I > R-F$
D) $R-Br > R-F > R-I > R-Cl$

☐ A ☐ B ☐ C ☐ D

74) All of the following are good leaving group EXCEPT:

- A) Cl^- C) I^-
B) Br^- D) OR^-

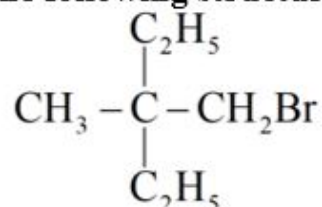
☐ A ☐ B ☐ C ☐ D

75) 1-Chlorobutane on reacting with alcoholic KOH gives:

- A) But-1-ene C) Butan-1-ol
B) But-1-one D) Butan-2-ol

☐ A ☐ B ☐ C ☐ D

76) Consider the following structure of alkyl halide:



The correct name of the given structure of alkyl halide is:

- A) 1-Bromomethyl-1-methylpentane
B) 1-Bromomethyl-3-methylpentane
C) 3-Bromomethyl-3-methylpentane
D) 2,2-Diethyl-3-bromomethylpentane

☐ A ☐ B ☐ C ☐ D

77) A haloalkane may be converted to alcohol by:

- A) Addition C) Dehydration
B) Elimination D) Substitution

☐ A ☐ B ☐ C ☐ D

78) The compound which reacts with HBr in accordance with the Markownikoff's rule is:

- A) $H_2C=CH_2$ C) Trans-but-2-ene
B) Cis-but-2-ene D) $(CH_3)_2C=CH_2$

☐ A ☐ B ☐ C ☐ D

79) Experiment show that reactivity order of alkyl halides is determined by the:

- A) Strength of carbon halogen bond
B) Bond polarity of carbon halogen bond
C) Bond energy of carbon halogen bond
D) Neither B nor C

☐ A ☐ B ☐ C ☐ D

80) The reaction of secondary alkyl halides may follow:

- A) S_N1 mechanism only
B) S_N2 mechanism only
C) Both S_N1 and S_N2 mechanism
D) Neither S_N1 nor S_N2

☐ A ☐ B ☐ C ☐ D

81) involving a simultaneous bond breakage and bond formation:

- A) One stage process only C) Both A and B
B) Two stage process only D) Neither A nor B

☐ A ☐ B ☐ C ☐ D

82) In tertiary alkyl halide, the halogen atom is attached to a carbon which is further attached with how many H-atoms:

- A) 1 C) 2
B) 3 D) No hydrogen atom

☐ A ☐ B ☐ C ☐ D

83) Consider the following statements in going from fluoromethane and iodomethane:

- I. The C-X bond length increases
II. The C-X bond energy decreases
III. The dipole moment decreases

Which of the above statements is/are correct?

- A) I only C) II and III only
B) II only D) I, II and III

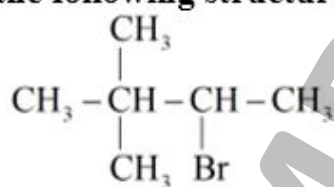
☐ A ☐ B ☐ C ☐ D

84) Which of the following is/are type of reactions shown by alkyl halide?

- A) Those reactions in which the halogen is replaced by some atom or group of atoms (nucleophilic substitution, or S_N reactions) only
B) Those which involve the removal of HX from the halide (elimination, or E reaction) only
C) Both A and B
D) Neither A nor B

☐ A ☐ B ☐ C ☐ D

85) Consider the following structure of alkyl halide:



The correct name of the given structure of alkyl halide according to IUPAC is:

- A) 2,2-Dimethyl-3-Bromobutane
B) 2-Methyl-3-Bromodiethylbutane
C) 2-Bromo-3,3-dimethylbutane
D) 2,2-dimethyl-2-Bromobutane

☐ A ☐ B ☐ C ☐ D

PREVIOUS

FINISH TEST

NEXT

< TEST

Biology Chemistry **Physics** English

- 86)** 1×10^9 electrons pass through a conductor in $10 \mu\text{s}$.
The current in (μA) through the conductor is:

A) 1.6 C) 0.16
B) 16 D) 160

☐ A ☐ B ☐ C ☐ D

- 87)** When will 5 C of charge pass a point in an electrical circuit?

A) When 5 A moves through a voltage of 5 V
B) When a power of 5 W is used for 5 s
C) When the current is 25 mA for 200 s
D) When the current is 10 A for 10 s

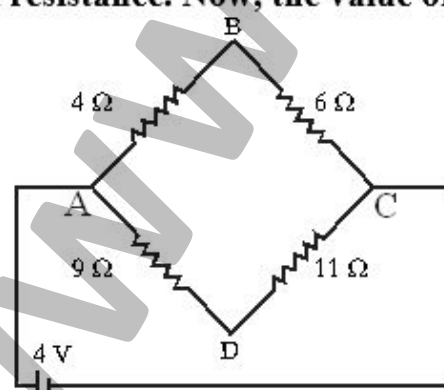
☐ A ☐ B ☐ C ☐ D

- 88)** Which of the following statement is not true?

A) Charge carriers in electrolytes are ions
B) Charge carriers in gases and plasma are electrons and ions
C) Charge carriers in semiconductors are ions and holes
D) Charge carriers in metals are free electrons

☐ A ☐ B ☐ C ☐ D

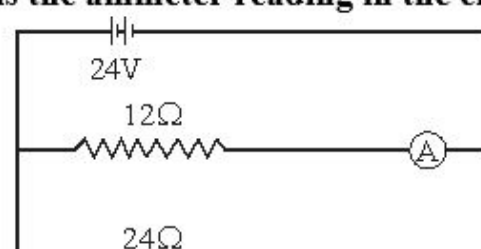
- 89)** Four resistance 4Ω , 6Ω , 9Ω and 11Ω are connected as shown to a battery of emf of 4 V and negligible internal resistance. Now, the value of $V_D - V_B$ is:



A) -0.2 V C) 0.2 V
B) 0.4 V D) -0.4 V

☐ A ☐ B ☐ C ☐ D

- 90)** What is the ammeter reading in the circuit of figure?



- 

 A) 2.0 A C) 3.0 A
 B) 1.0 A D) 2.5 A

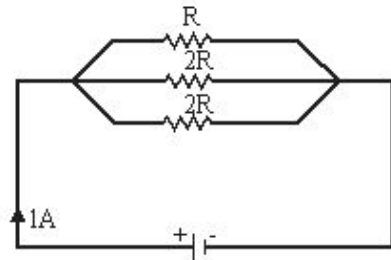
☐ A ☐ B ☐ C ☐ D

- 91) A wire has resistance $12\ \Omega$. It is bend in form of a square. The effective resistance between any two diagonal vertices of square is:

- A) $3\ \Omega$ C) $12\ \Omega$
 B) $4\ \Omega$ D) $6\ \Omega$

☐ A ☐ B ☐ C ☐ D

- 92) If the current drawn from the battery is "1 A", the current in the circuit shown through "R" will be _____?



- A) 0.25 A C) 0.75 A
 B) 0.50 A D) 1.0 A

☐ A ☐ B ☐ C ☐ D

- 93) Which of the following is the device with variable slope of current voltage graph?

- A) Tungsten filament bulb C) Transistor
 B) Semiconductor Diode D) All of these

☐ A ☐ B ☐ C ☐ D

- 94) Two wires of the same dimensions but resistivity ρ_1 and ρ_2 are connected in series. The equivalent resistivity of the combination is:

- A) $\frac{\rho_1 + \rho_2}{2}$ C) $\rho_1 + \rho_2$
 B) $2(\rho_1 + \rho_2)$ D) $\sqrt{\rho_1 + \rho_2}$

☐ A ☐ B ☐ C ☐ D

- 95) A wire is stretched such that its radius becomes half of present value. If its initial resistance was '2R', then the resistance now becomes:

- A) 32R C) 24R
 B) 16R D) 4R

☐ A ☐ B ☐ C ☐ D

- 96) The length of a wire is doubled. Its conductance will be:

- A) Unchanged C) Doubled
 B) Halved D) Quadrupled

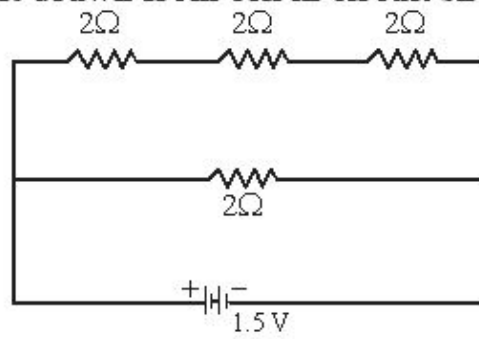
☐ A ☐ B ☐ C ☐ D

- 97) Two unequal resistances are connected in parallel across a cell. Which of the following statement is true?

- A) Same current is set up in both resistors
 B) Current through smaller resistor is more
 C) Current through larger resistor is more
 D) Any of these

☐ A ☐ B ☐ C ☐ D

98) Current drawn from cell in circuit shown is:



- A) 1 A
B) 4 A
C) 5 A
D) 2 A

☐ A ☐ B ☐ C ☐ D

99) A current of 2.0 A passes through a wire in 1.5 min. The magnitude of charge flowing is:

- A) 60 C
B) 180 C
C) 30 C
D) 90 C

☐ A ☐ B ☐ C ☐ D

100) Temperature coefficient of resistance (α) is equal to:

- A) $\frac{R_t + R_o}{R_o \Delta t}$
B) $\frac{R_t - R_o}{R_o \Delta t}$
C) $\frac{(R_o - R_t)}{R_o \Delta t}$
D) None of these

☐ A ☐ B ☐ C ☐ D

101) A student measures a current as 0.25 A. Which of the following correctly expresses this result?

- A) 25 mA
B) 250 MA
C) 25 MA
D) 250 mA

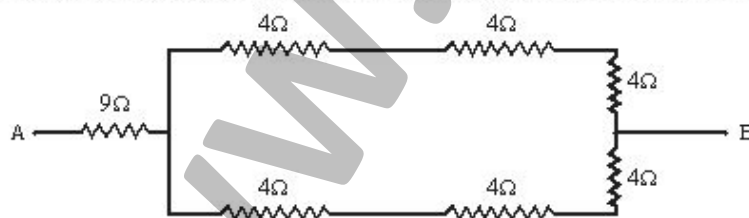
☐ A ☐ B ☐ C ☐ D

102) A copper wire of resistance $2R$ is cut into ten parts of equal length. Two pieces each are joined in series and then five such combinations are joined in parallel. The new combination will have a resistance:

- A) $2R$
B) $\frac{2R}{25}$
C) $\frac{2R}{5}$
D) $\frac{R}{25}$

☐ A ☐ B ☐ C ☐ D

103) The effective resistance of the network shown is:



- A) 15 Ω
B) 21 Ω
C) 7 Ω
D) 24 Ω

☐ A ☐ B ☐ C ☐ D

104) Three resistances, each of 6Ω are connected to form a triangle. The resistance between any two terminals is:

- A) 4Ω
B) 8Ω
C) 12Ω
D) 18Ω

☐ A ☐ B ☐ C ☐ D

105) A wire of resistance 4.0Ω is stretched to twice its original length. The resistance of new wire will be:

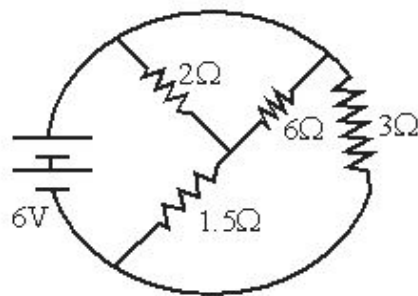
- A) 2Ω
B) 4Ω
C) 4Ω
D) 16Ω

B) $8\ \Omega$

D) $16\ \Omega$

- ☐ A ☐ B ☐ C ☐ D

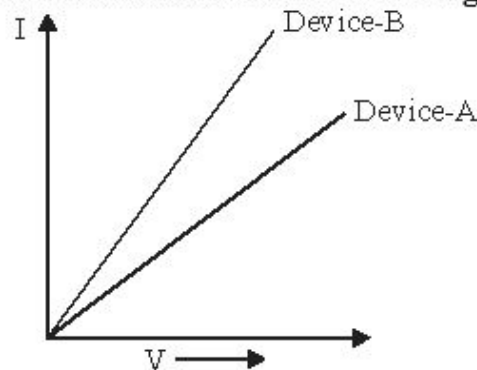
- 106) The total current supplied to the circuit by the battery is:



- A) 1 A
B) 2 A
C) 4 A
D) 6 A

- ☐ A ☐ B ☐ C ☐ D

- 107) For which device the conductance is greater?



- A) Device – A
B) Device – B
C) Both have same conductance
D) Device – B has zero conductance

- ☐ A ☐ B ☐ C ☐ D

- 108) When resistance of the material increases by increasing the temperature then the value of temperature co-efficient of resistivity will be:

- A) Constant
B) Zero
C) Positive
D) Negative

- ☐ A ☐ B ☐ C ☐ D

- 109) The unit of temperature co-efficient is:

- A) $^{\circ}\text{C}$
B) $^{\circ}\text{C}^{-1}$
C) $^{\circ}\text{C} \cdot \text{m}$
D) $^{\circ}\text{C}^{-1} \cdot \text{m}$

- ☐ A ☐ B ☐ C ☐ D

- 110) A battery is marked 9.0 V. What does this mean?

- A) Each coulomb of charge from the battery supplies 9.0 J of electrical energy to the whole circuit
B) The battery supplies 9.0 J to an external circuit for each coulomb of charge
C) The potential difference across any component connected to the battery will be 9.0 V
D) There will always be 9.0 V across the battery terminal

- ☐ A ☐ B ☐ C ☐ D

- 111) What is current in a 2×10^6 ohms resistor having a potential difference of 6×10^3 volts?

- A) 1×10^{-3} A
B) 2×10^{-3} A
C) 3×10^{-3} A
D) 4×10^{-3} A

- ☐ A ☐ B ☐ C ☐ D

- 112) The ratio of I/V for ohmic conductor is called as:

- A) Resistance
C) Resistivity

B) Conductance

D) Conductivity

- ☐ A ☐ B ☐ C ☐ D

113) The conductance for I-V graph of Ohmic conductor making 45° with both axis is?

- A) 1 mho C) $\sqrt{3}$ mho
B) $\sqrt{2}$ mho D) $\frac{1}{\sqrt{2}}$ mho

- ☐ A ☐ B ☐ C ☐ D

114) The resistance of a conductor having a length of one meter and an area of cross section one square meter is called?

- A) Conductance
B) Resistivity
C) Conductivity
D) Temperature co-efficient

- ☐ A ☐ B ☐ C ☐ D

115) The resistance of a coil at 100°C is $4.2\ \Omega$. If temperature coefficient of resistance is 0.004°C^{-1} , then its resistance at 0°C is?

- A) $6.5\ \Omega$ C) $3\ \Omega$
B) $5\ \Omega$ D) $2.5\ \Omega$

- ☐ A ☐ B ☐ C ☐ D

PREVIOUS

FINISH TEST

NEXT

< TEST

Biology Chemistry Physics **English**

- 116)** Directions: Read each sentence and determine the meaning of the word using cross sentence clues or your prior knowledge.

I love football but, _____, I have no talent as a player.

- A) Alas
B) Hurrah
C) Oh
D) Aha

☐ A ☐ B ☐ C ☐ D

- 117)** We always joke that my _____ mother missed her calling as a private investigator.

- A) Uninterested
B) Curious
C) Furious
D) Uproarious

☐ A ☐ B ☐ C ☐ D

- 118)** While managing the poker table, the dealer was _____ five cards to each person at the beginning of each round.

- A) Renouncing
B) Extracting
C) Dispersing
D) Dispensing

☐ A ☐ B ☐ C ☐ D

- 119)** Directions: Choose the most suitable answer that identifies the homophones in the sentence.

The creditor called the customer repeatedly in an attempt to _____ her into paying her debt.

- A) Din
B) Dune
C) Dun
D) Den

☐ A ☐ B ☐ C ☐ D

- 120)** Following the fall, the elderly woman was lucky to only have a big black _____ on her hip instead of breaking it.

- A) Brews
B) Bruise
C) Brows
D) Browse

☐ A ☐ B ☐ C ☐ D

- 121)** Because he was scared to show up for the _____, the rancher decided to run from the fight.

- A) Duel
B) Dwell
C) Dwell
D) Dwell

A) Duel
B) Dual

C) Dwell
D) Dowel

☐ A ☐ B ☐ C ☐ D

- 122) Direction: Choose the word that is most nearly SIMILAR in the meaning of the following word.

APPRAISED

A) Bewildered
B) Valued

C) Crammed
D) Embellished

☐ A ☐ B ☐ C ☐ D

- 123) **BEAD**

A) Shush
B) Atlas

C) Globule
D) Stripe

☐ A ☐ B ☐ C ☐ D

- 124) **CREDENTIALS**

A) Predation
B) Predictions

C) Perditions
D) Identifications

☐ A ☐ B ☐ C ☐ D

- 125) **COMPREHENSION**

A) Rasp
B) Grasp

C) Brisk
D) Accurate

☐ A ☐ B ☐ C ☐ D

- 126) **DISTRACT**

A) Abstract
B) Deflect

C) Attract
D) Obstruct

☐ A ☐ B ☐ C ☐ D

- 127) Directions: Choose the word that is most OPPOSITE in the meaning of the following word.

ATTACHED TO

A) Ardent
B) Intimidated

C) Aloof
D) Relinquished

☐ A ☐ B ☐ C ☐ D

- 128) **COVETED**

A) Begrudge
B) Abjure

C) Teemed
D) Diverted

☐ A ☐ B ☐ C ☐ D

- 129) **COLLIDED WITH**

A) Varied
B) Agreed

C) Believed
D) Ridiculed

☐ A ☐ B ☐ C ☐ D

- 130) **CAPTIVATED**

A) Repulsed
B) Enchanted

C) Sympathetic
D) Obnoxious

☐ A ☐ B ☐ C ☐ D

- 131) **CASUALLY**

A) Abruptly
B) Nonchalantly

C) Carefully
D) Smoothly

☐ A ☐ B ☐ C ☐ D

132) Directions: Choose the correct spelling:

- | | |
|---------------|--------------|
| A) Anxieties | C) Anxyeties |
| B) Anaxieties | D) Anxeities |

☐ A ☐ B ☐ C ☐ D

133) A) Cryteria C) Craiteria
B) Critaria D) Criteria

☐ A ☐ B ☐ C ☐ D

134) A) Acenntuated C) Accentuated
B) Assantuated D) Assentuated

☐ A ☐ B ☐ C ☐ D

135) A) Dispansing C) Dispensing
B) Dispencing D) Dicpensing

☐ A ☐ B ☐ C ☐ D

PREVIOUS

FINISH TEST